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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,150	04/08/2004	Armand Eugene Albert Koolen	081468-0309142	6676
909	7590	09/01/2005	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			MATHEWS, ALAN A	
P.O. BOX 10500			ART UNIT	PAPER NUMBER
MCLEAN, VA 22102			2851	

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/820,150	Applicant(s) KOOLEN ET AL. 	
	Examiner Alan A. Mathews	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/10/04 & 12/10/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 12 is objected to because of the following informalities: In claim 12, line 1, there is no proper antecedent basis for "the method". In addition, on line 3, there is no proper antecedent basis for "the plane of entrance". It appears to the Examiner that Applicant intended for claim 12 to depend from claim 11. If Applicant were to change the dependency of claim 12 to depend from claim 11, the objection to claim 12 will be withdrawn. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose that each lens of said pair comprises a **reflective** optical element as recited in claim 4.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanitsu et al. (U. S. Patent No. 5,963,306). Tanitsu et al. discloses in figure 1 and column, lines 19-32, a mask stage (support structure) for supporting a mask (patterning device), and a wafer stage (substrate table) for holding a wafer (substrate). Element 6 is the projection system. The illumination system includes elements 3 and 8. The beam delivery system includes elements M1, 2a, 2b, and M2 for redirecting and delivering the beam to the illumination system. Figures 2a, 2b, and 2c, and column 4, lines 66 and 67, and column 5, lines 1-48, discloses an imaging system including a front light collecting lens 2a and a second light collecting lens 2b. The plane of entrance is at the optical integrator 3 (see column 5, lines 7-21). Column 5, lines 16-22 states:

Accordingly, even if the excimer laser light source 1 is oriented obliquely with respect to the optical axis AX, the collimated light beam (indicated by broken lines in Fig. 2(a)) emitted from the excimer laser light source 1 obliquely with respect to the optical axis AX reaches the entrance plane of

the optical integrator 3 with no positional misalignment, despite any angular misalignment.

With respect to claim 3, figure 2a discloses f1, f2, f3, and f4, with each lens of the pair having a focal distance of $\frac{1}{4}$ times the distance from the object plane to the image plane. It is further noted that figures 5 and 6 disclose other embodiments.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanitsu et al. (U. S. Patent No. 5,963,306) as applied to claims 1 and 10 above, and further in view of either the Japanese patent document 11-145033 or the Japanese patent document 2000-315639 or Mori (U. S. Patent No. 6,762,824). Tanitsu et al. discloses the invention except for disclosing translatable and tiltable mirrors. The Japanese patent document 11-145033 discloses in figures 1 and 2 a translatable and tiltable mirror 36 for the purpose of better adjustment. The Japanese patent document 2000-315639 discloses in figures 2 and 3 a translational and tiltable mirror 28. Mori discloses in figure 1 and 2 tiltable mirrors 110 and 130 (see also column 3, lines 22-27 for translational movement). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide Tanitsu et al. with a translatable

Art Unit: 2851

and tiltable mirror in view of either the Japanese patent document 11-145033 or the Japanese patent document 2000-315639 or Mori (U. S. Patent No. 6,762,824) for the purpose of providing better adjustment and thus producing a better final product.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents cited in the PTO-1449 are cited for the same reasons they were cited in Applicant's IDS. The Japanese patent document 200-77315 is cited to show in figures 1 and 2 a translational and tiltable mirror 23. The patent to Taniuchi et al. is cited to show in figure 2, movable reflectors 20A and 20B.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan A. Mathews whose telephone number is (571) 272-2123. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alan A. Mathews
Primary Examiner
Art Unit 2851

AM